



medi

# Patient specific osteoarthritis therapy

medi OA range

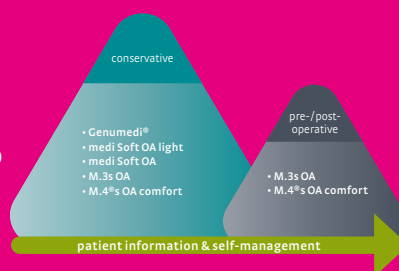
medi. I feel better.

# Dear Reader,

Globally, osteoarthritis is the most common joint disease among adults<sup>1</sup> and the number of people concerned is forecast to rise.

Osteoarthritis is usually accompanied by pain, movement restrictions and a feeling of stiffness. This can lead to a "downward spiral", because pain in the affected joint limits patient's mobility. Therefore, patients will need significant pain relief and more mobility in everyday life. Accordingly, movement plays a central role in the treatment of osteoarthritis.

OA braces are an effective alternative to knee joint replacement and pain relievers. In order to actively support patients in their everyday life, medical aids have to relieve pain effectively, be easy to use and offer a high wearing comfort. These requirements have been incorporated in the development of the new medi OA therapy concept in order to individually support your patients.



<sup>1</sup> WoolfAD, Pfleger B, Burden of major musculoskeletal conditions. Bull World Health Organ 2003;81(9):646–656.



# Effective relief - less pain - more mobility

## Offloading braces verifiably increase mobility and reduce pain

The Osteoarthritis Research Society International (OARSI) recommends use of knee braces in their guidelines for the non-surgical management of knee osteoarthritis.

Reviews show that knee braces are effective in decreasing pain, joint stiffness, and drug dosage and also improve physical function.<sup>1</sup>

Osteoarthritis is often caused by a leg deformity and the corresponding mechanical loading.

A study by Ralf Müller-Rath has proved the practical application of the M.4s OA knee off-loading brace for osteoarthritis of the knee<sup>1</sup>. The orthosis, worn for 16 weeks, demonstrably relieved pain and improved the patient's mobility and gait. The "downward spiral" was halted and patients benefitted from a better quality of life.

The study shows the positive effect of M.4s OA after 16 weeks:<sup>1</sup>



Wearing the M.4s OA leads to significant pain reduction. The visual analogue scale (VAS) score improved significantly from 4.5 to 2.5 during the treatment period.

4.5

Sensitivity to pain before wearing the brace\*

2.5

Sensitivity to pain after wearing the brace\*



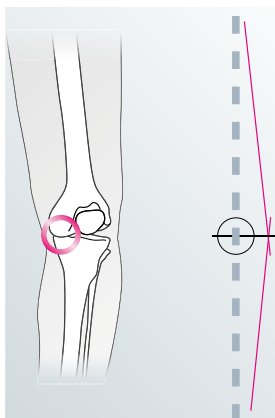
Wearing the M.4s OA leads to a statistically significant improvement in symptoms, joint function and degree of activity in 4 out of 5 subjective and objective scores.

Tegner activity index (p = 0.0180)

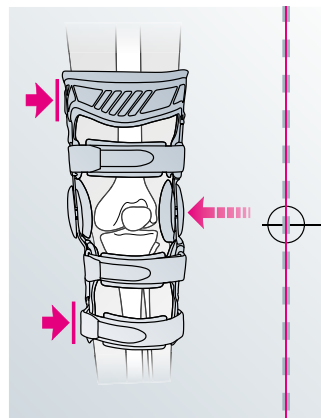
Insall score (p = 0.0402)

Lequesne score (p = 0.0052)

WOMAC score (p = 0.0254)



Strain without brace



Strain with brace:  
3 point principle for guaranteed relief

## Brace Test prior to HTO

High tibial valgus osteotomy (HTO) is an established treatment option for varus gonarthrosis. A valgus knee brace results in a reduction of medial compartment loads and has an effect comparable to HTO. The study by Minzlaff using the M.4s OA knee brace showed that the Brace Test seems to be well suited to predicting post-operative pain reduction in patients with borderline indication for valgus HTO. The brace treatment resulted in a significant pain reduction in the medial compartment. Some patients continued the brace treatment after finishing the test.<sup>2</sup>

<sup>1</sup> cf. Müller-Rath, R., Clinical and gait analysis tests on a knee off-loading valgus brace for treatment of osteoarthritis of the knee: Zeitschrift für Orthopädie und Unfallchirurgie, 2011 (149), pp.160 – 165.

<sup>2</sup> Minzlaff P. et al, Valgus bracing in symptomatic varus malalignment for testing the predicted "unloading effect" following valgus high tibial osteotomy. Knee Surg Sports Traumatol Arthrosc 2015 23:1964-1970

# Patients say ...

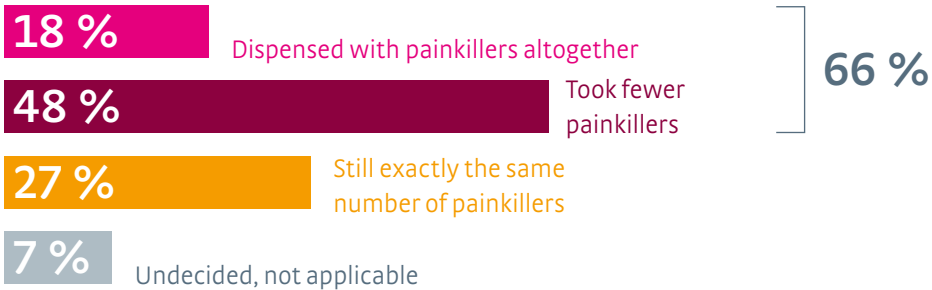
**One of the most persistent myths is: soft supports and braces often only lie around in the cupboard, because patients hardly ever wear them.**

Surveys show: the opposite is true! The Institute for Demoscopy in Allensbach, Germany investigated how intensively soft supports and braces are actually used. Furthermore, 435 wearers of soft supports and braces were asked whether the medical device had changed their sensitivity to pain.<sup>3</sup>

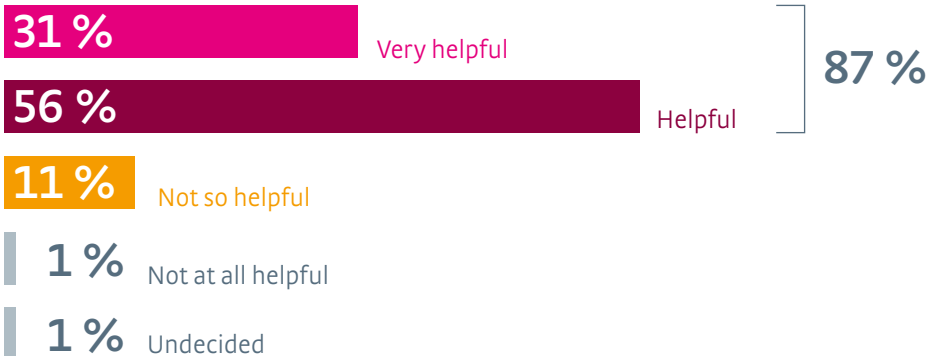
The result:

- Patients regularly wear soft supports and braces.
- The medical device had helped their treatment considerably.
- Soft supports and braces had reduced or stopped the consumption of painkillers.

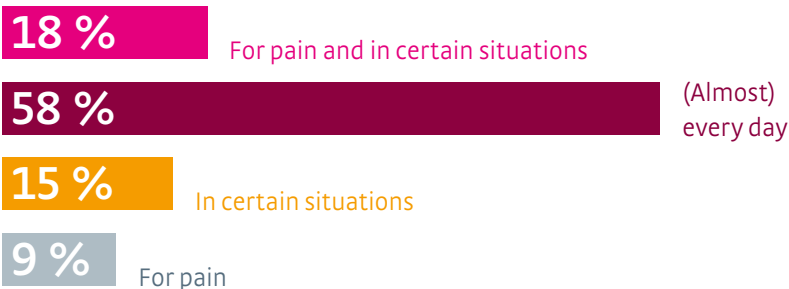
66% of patients in pain reported needing fewer or no painkillers thanks to the soft support or brace.



87% of the patients reported the soft support or brace had been helpful or very helpful for their treatment.



Six out of 10 patients wear their soft support or brace almost every day.

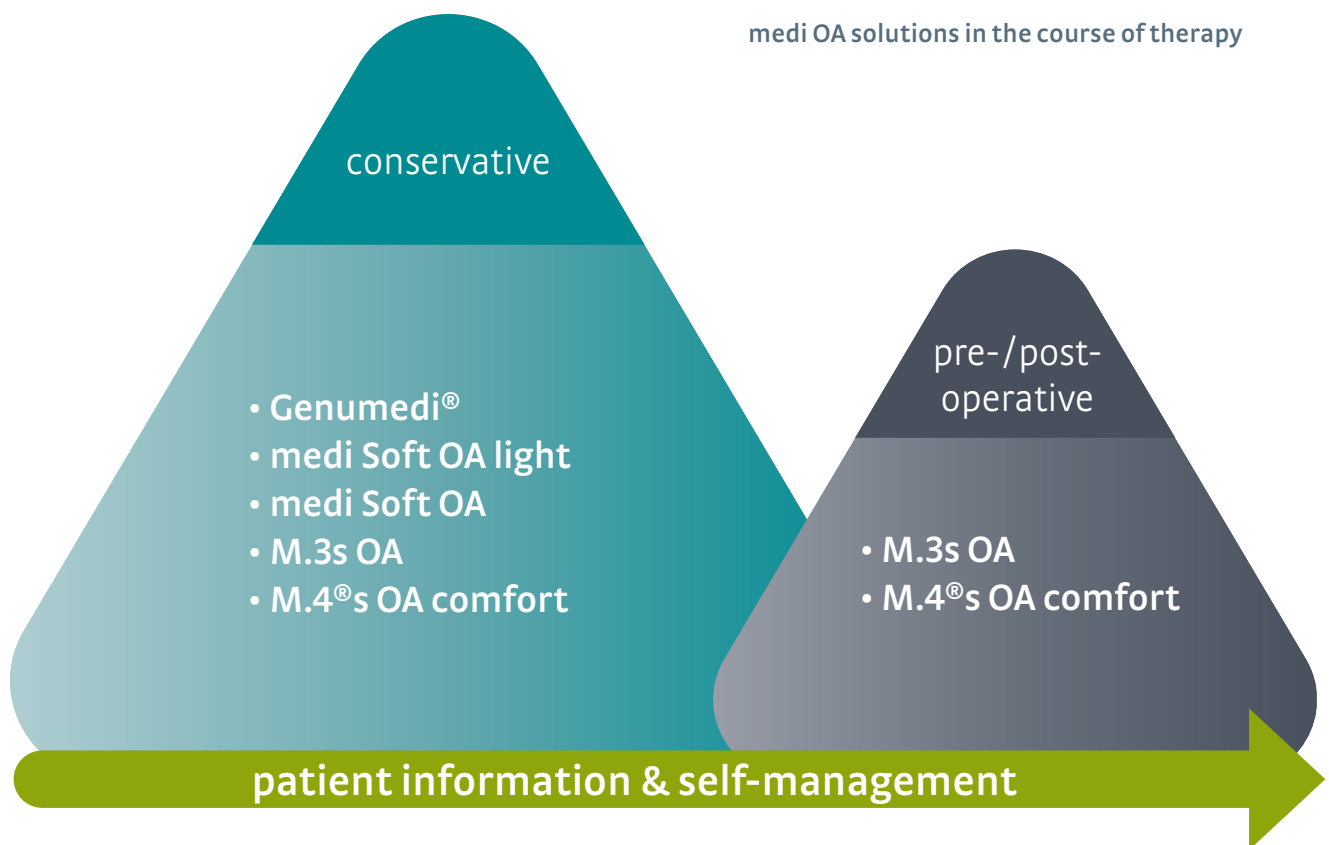


<sup>3</sup> Institut für Demoskopie (IfD) in Allensbach, Germany commissioned by eurocom e.V. (March 2014), Elastic soft supports and braces: quality of care and product satisfaction – results of a representative patient survey.

# The comprehensive medi OA therapy concept

medi is planning for the future with holistic patient management concepts. This enables the therapy of a wide range of clinical pictures to be supported with medical devices and the suitable service offers from medi – at almost every stage and for virtually every indication.

Thus medi offers valuable support in everyday patient care from the very first diagnosis to long-term therapy and promotes patient self-management. The new therapy concept combines highly effective products and measures that promote patient compliance – for significant relief and more quality of life.



## conservative treatment

A major focus in the conservative treatment of osteoarthritis is the relief and stabilisation of the knee joint. By the use of offloading braces a stabilisation and a correction of a varus deformity (bowed leg) or valgus deformity (knock-kneed) of the leg can be achieved. The stress on the affected region of the knee can thereby be reduced, resulting in a reduction of pain and improvement of joint function for the patient.

### Products:

- Genumedi
- medi Soft OA light
- medi Soft OA
- M.3s OA
- M.4s OA comfort

## pre- / post-operative treatment

Dependent on the stage of the disease and patient specific factors, an operation should only be considered in cases where conservative treatment cannot restore analgesia and mobility sufficiently. The high tibial osteotomy (HTO) is an adequate surgical option in the treatment of osteoarthritis. The temporary use of an unloading valgus force producing knee brace may well demonstrate the future outcome of HTO surgery as a prediction of expected post-operative pain relief. medi offloading braces can also be used after soft tissue surgery where post op relief is required in the medial or lateral compartments..

### Products:

- M.3s OA
- M.4s OA comfort

## patient information and self-management

The comprehensive medi service offerings contain detailed patient information, tips for activity in daily living, physio exercises and tips for a balanced diet.



<sup>1</sup> S2k-Leitlinie Gonarthrose – AWMF-Registriernummer 033-004; Stand 18.12.17.

<sup>2</sup> Minzlaff P. et al, Valgus bracing in symptomatic varus malalignment for testing the predicted "unloading effect" following valgus high tibial osteotomy. Knee Surg Sports Traumatol Arthrosc 2015 23:1964-1970







# The new medi soft braces for osteoarthritis

Easy handling, high wearing comfort, effective relief



## Easy handling

The combination of a slip-on and wrap-around design enables easy donning and a fast and correct attachment to the leg. The split wrap-around design at the thigh requires less force for closing and enables an optimal adjustment to different leg shapes at the same time.



## Comfortzone popliteal space

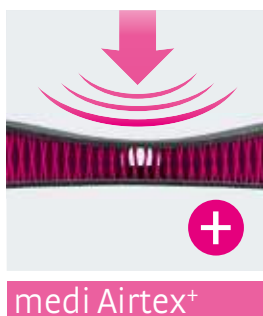
The intelligent construction design guides the belts outside the sensitive popliteal space, thus avoiding unpleasant pressure. The integrated, thin material in the popliteal comfort zone further improves wearing comfort thanks to its high breathability.



## Effective relief

One of the highlights of the new soft braces is the new relief mechanism, featuring a patented, dynamic belt tensioning. This provides for the strongest relief, when the stress is at a maximum.

- **full extension:** belts are being pulled towards the hinge - maximum relief near full extension
- **flexion:** hinge follows the motion of the knee and the belt tensioning is reduced



## medi Airtex® – Breathable and moisture wicking

The medi OA softbraces are equipped with the innovative medi Airtex+ material. Thus the orthosis offers high wearing comfort even during longer wear.

# M.4<sup>®</sup>s OA comfort

## 4-point rigid knee brace for varus or valgus pressure relief and stabilisation

### Indications

All indications requiring unicompartimental relief by 3 point principle and additional physiological guidance and stabilization by 4 point principle and if necessary limitations of Range of motion such as:

- severe medial or lateral gonarthrosis (at least level III) combined with ligament instability
- unicompartimental relief before HTO (brace test)
- unilateral painful stress fractures or - reactions (e.g. tibiahead)
- cartilage surgery or chondroplasty
- meniscus intervention

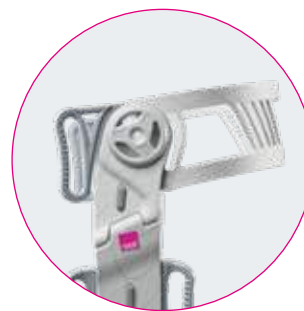
### Mode of action

- relief of the lateral or medial compartment using the 3-point principle
- pain relief by reducing weight-bearing on the affected side of the joint
- optimal stabilisation using the 4-point principle
- safe collateral stabilisation by rigid frame
- extension and flexion limitation protects against damaging joint movements and relieves injured structures
- limitations:
  - extension: 0°, 10°, 20°, 30°, 45°
  - flexion: 0°, 10°, 20°, 30°, 45°, 60°, 75°, 90°
  - immobilisation: 0°, 10°, 20°, 30°, 45°

## Proven relief – more comfort

The proven relief mechanism of the new M.4s OA comfort effectively relieves the affected side of the joint and reliably protects the leg from swerving to the medial or lateral side.

The slim and lightweight design as well as the flexible adjustment to the patient's conditions provide higher wearing comfort and promote patient compliance.



### Optimal fit

movable thigh bracket for better adjustment to the changing shape of the thigh during motion.



### Varus- / Valgus-adjustment joints

Proven varus / valgus adjustment joints for reliable relief of the lateral or medial compartment.



### Slim design

Ultra-flat and lightweight frame and hinge construction enables unobtrusive wearing under clothing.



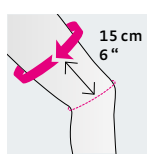
**Secure fit**  
Improved anti-slip pads with integrated mounting enable optimal fit.



**Individual adjustment**  
Comprehensive pad and wedge sets enable the individual adjustment to the patient and the clinical picture.



**More comfort**  
Double-layer condylar padding cover to increase comfort and reduce pressure friction.



<b>circumference thigh (cm)</b>	31 – 37	37 – 45	45 – 51	51 – 57	57 – 65	65 – 74
<b>size</b>	XS	S	M	L	XL	XXL
<b>article number</b>	G.52□◇01	G.52□◇02	G.52□◇03	G.52□◇04	G.52□◇05	G.52□◇06

□ = fill in for variant: 7 = Varus, 8 = Valgus / ◇ = fill in for orientation: 2 = left, 3 = right

# M.3s OA

## Single hinged functional knee brace for the relief of uni compartmental osteoarthritis of the knee

### Indications

All indications requiring unicompartimental relief by 3 point principle and additional physiological guidance and if necessary limitations of Range of motion such as:

- unilateral osteoarthritis
- cartilage surgery or chondroplasty
- unilateral Stressreactions or Stressfractures of Tibiahead
- meniscus intervention

### Mode of action

- relief of the lateral or medial compartment using the 3-point principle
- pain relief by reducing weight-bearing on the affected side of the joint



### Design

Elastic medial strap design at thigh level.



### Strong frame

100% aluminium frame. Strong, low profile, light weight frame and hinge construction.



### Key included

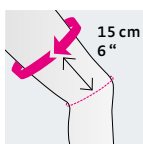
Allen key included for customised adjustments.



**Air condyle pads**  
Air condyle pads with skin-grip system.



**Numbered straps**  
Numbered straps ensure a simple fastening sequence.



<b>circumference thigh (cm)</b>	31 – 37	37 – 45	45 – 51	51 – 57	57 – 65	65 – 74
<b>size</b>	XS	S	M	L	XL	XXL
<b>article number</b>	5.5F□◇01	5.5F□◇02	5.5F□◇03	5.5F□◇04	5.5F□◇05	5.5F□◇06

□ = fill in for variant: 4 = Varus, 5 = Valgus / ◇ = fill in for orientation: 2 = left, 3 = right

Following wedges are pre-installed on the brace at the point of delivery: extension 0° / flexion 90°

# medi Soft OA

## Soft knee brace for pressure relief and guidance

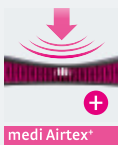
### Indications

All indications requiring unicompartimental relief by 3 point principle and additional physiological guidance and if necessary limitations of Range of motion such as:

- unilateral osteoarthritis
- cartilage surgery or chondroplasty
- unilateral Stressreactions or Stressfractures of Tibiahead
- meniscus intervention

### Mode of action

- relief of the lateral or medial compartments through 3-point principle
- pain reduction through pressure relief on the affected side of the joint
- compression to stabilise and improve proprioception
- limitation possibilities:
  - extension: -5°, 0°, 10°, 20°, 30°, 45°
  - flexion: 0°, 10°, 20°, 30°, 45°, 60°, 75°, 90°, 120°
  - immobilisation: 0°, 10°, 20°, 30°, 45°



## Two modes of action – twice the effectiveness

The medi Soft OA combines effective unloading with increased stabilisation. The compressive medi Airtex® material helps to stabilize the knee and improves proprioception. The additional circular belts offer further stability for the knee-joint, while the proven 3-point principle effectively relieves the lateral or medial compartment.



### Effective stabilisation

Double-sided hinges and two circular belts help to optimally stabilise the knee-joint.



### High wearing comfort

Popliteal space comfort zone without belts and additional Lycra for highest wearing comfort.



### Individual adjustment

Individually adjustable pressure relief thanks to the multi-stage locking system.



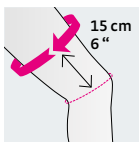
**Easy to put on**  
The intelligent slip-wrap design facilitates donning and doffing with minimal effort.



**Optimal positioning**  
Patella cut-out supports the exact positioning and makes sure that the brace fits correctly.



**Fast and easy handling**  
Quick fasteners enable quick and easy donning and doffing



<b>circumference thigh (cm)</b>	31 – 37	37 – 45	45 – 51	51 – 57	57 – 65	65 – 74
<b>size</b>	XS	S	M	L	XL	XXL
<b>article number</b>	G.03◊.611	G.03◊.612	G.03◊.613	G.03◊.614	G.03◊.615	G.03◊.616

◊ = fill in for orientation: 2 = left varus / right valgus, 3 = left valgus / right varus

# medi Soft OA light

## Soft knee brace for pressure relief and guidance

### Indications

All indications requiring unicompartimental relief by 3 point principle and additional physiological guidance such as:

- unilateral osteoarthritis
- meniscus intervention

### Mode of action

- relief of the lateral or medial compartments through 3-point principle
- pain reduction through pressure relief on the affected side of the joint
- compression to stabilise and improve proprioception
- limitation possibilities:
  - extension:  $-5^{\circ}$ ,  $0^{\circ}$ ,  $10^{\circ}$ ,  $20^{\circ}$ ,  $30^{\circ}$ ,  $45^{\circ}$
  - flexion:  $0^{\circ}$ ,  $10^{\circ}$ ,  $20^{\circ}$ ,  $30^{\circ}$ ,  $45^{\circ}$ ,  $60^{\circ}$ ,  $75^{\circ}$ ,  $90^{\circ}$ ,  $120^{\circ}$
  - immobilisation:  $0^{\circ}$ ,  $10^{\circ}$ ,  $20^{\circ}$ ,  $30^{\circ}$ ,  $45^{\circ}$



## The best of both worlds

The medi Soft OA light combines the high wearing comfort and the mode of action of a stabilizing support with the effective relief of the 3-point principle. The slim and intelligent design improves patient compliance with high wearing comfort and easy handling. Therefore, the medi Soft OA light is particularly suited for older patients.



### Optimal fit

Silicone knobs on the inside of the fabric prevent slipping and rotation.



### Dynamic pressure relief

Patented dynamic belt tensing for an optimum pressure distribution during movement.



### High wearing comfort

Popliteal space comfort zone without belts and additional Lycra for highest wearing comfort.





**Easy to put on**

The intelligent slip-wrap design facilitates donning and doffing with minimal effort.



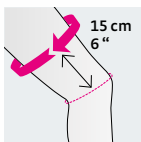
**Optimal positioning**

Patella cut-out supports the exact positioning and makes sure that the brace fits correctly.



**Easy and effective relief**

The manual belt tensioning enables the patient to exactly adjust the desired relief.



<b>circumference thigh (cm)</b>	31 – 37	37 – 45	45 – 51	51 – 57	57 – 65	65 – 74
<b>size</b>	XS	S	M	L	XL	XXL
<b>article number</b>	G.04◊.611	G.04◊.612	G.04◊.613	G.04◊.614	G.04◊.615	G.04◊.616

◊ = fill in for orientation: 2 = left varus / right valgus, 3 = left valgus / right varus

# Genumedi®

## Knee support with patella silicone ring

### Indications

All indications requiring soft tissue compression with local pads in the area of the patella, such as:

- slight instability of the knee joint
- articular effusions and swellings
- chronic, postoperative and posttraumatic inflammation
- osteoarthritis and arthritis
- patello femoral pain syndrome

### Mode of action

- massage effect silicone insert
- improves the blood circulation and aids absorption of haematomas and oedemas
- improves proprioception and muscular support (stabilisation of the knee)

### Available variants:

- Genumedi®extrawide with innovative cuff
- Genumedi®extrawide with topband
- Genumedi®customised



New fabric technology to allow easy donning and wearing comfort with tried-and-tested stability.

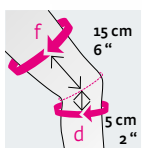


Optimised Comfort Zone with rippled structure for increased user comfort in the hollow of the knee.



### Integrated silicone patella

Integrated silicone patella donut-shaped with 3D profile for a gentle massaging effect.



<b>circumference "f" (cm)</b>	37 – 40	40 – 43	43 – 46	46 – 49	49 – 52	52 – 55	55 – 58
<b>circumference "d" (cm)</b>	25 – 28	28 – 31	31 – 34	34 – 37	37 – 40	40 – 43	43 – 46
<b>size</b>	I	II	III	IV	V	VI	VII
<b>article number</b>	K.102.Δ11	K.102.Δ12	K.102.Δ13	K.102.Δ14	K.102.Δ15	K.102.Δ16	K.102.Δ17



Δ = fill in for colour: 2 = silver, 8 = sand

# The medi OA product range


## A suitable, individual solution for every patient

According to the OARSI guidelines for the management of osteoarthritis, the suitable therapy should be determined individually. Accordingly, the suitable conservative and operative treatment options as well as patient individual criteria like pain level, age and the degree of osteoarthritis should be considered. medi now offers a comprehensive product range that enables a more individual, patient-centred care.

### knee braces for osteoarthritis and pressure relief

		Indications		What's special?
	<p><b>M.4s OA comfort</b> 4-point knee brace for varus or valgus pressure relief and stabilisation</p>	<p>All indications requiring unicompartimental relief by 3 point principle and additional physiological guidance and stabilization by 4 point principle and if necessary limitations of Range of motion such as:</p> <ul style="list-style-type: none"> <li>• severe medial or lateral gonarthrosis (at least level III) combined with ligament instability</li> <li>• unicompartimental relief before HTO (brace test)</li> <li>• unilateral painful stress fractures or - reactions (e.g. tibiahead)</li> <li>• cartilage surgery or chondroplasty</li> <li>• meniscus intervention</li> </ul>	<ul style="list-style-type: none"> <li>• strong overloading of the medial or lateral compartment</li> <li>• permanent relief, where surgery is contraindicated</li> </ul>	<p>hinge proximal to knee joint allows precise off-loading of the knee; movable upper thigh frame for ideal adaption and positioning to the leg</p>
	<p><b>M.3s OA</b> single hinged functional knee brace for the relief of uni-compartmental osteoarthritis of the knee</p>	<p>All indications requiring unicompartimental relief by 3 point principle and additional physiological guidance and if necessary limitations of Range of motion such as:</p> <ul style="list-style-type: none"> <li>• unilateral osteoarthritis</li> <li>• cartilage surgery or chondroplasty</li> <li>• unilateral Stressreactions or Stressfractures of Tibiahead</li> <li>• meniscus intervention</li> </ul>	<ul style="list-style-type: none"> <li>• interim care until decision has been taken on possible surgical procedures such as correction osteotomy</li> </ul>	<p>hinge proximal to knee joint allows precise off-loading of the knee</p>
<p><b>soft braces for optimal stabilisation with compressive medi Airtex<sup>+</sup> material</b></p>				
	<p><b>medi Soft OA</b> soft knee brace for relief and guidance of the knee</p>	<p>All indications requiring unicompartimental relief by 3 point principle and additional physiological guidance and if necessary limitations of Range of motion such as:</p> <ul style="list-style-type: none"> <li>• unilateral osteoarthritis</li> <li>• artilage surgery or chondroplasty</li> <li>• unilateral Stressreactions or Stressfractures of Tibiahead</li> <li>• meniscus intervention</li> </ul>		<p>patented dynamic belt tensioning for effective off-loading of the knee; compressive medi Airtex<sup>+</sup> improves proprioception</p>
	<p><b>medi Soft OA light</b> soft knee brace for relief and guidance of the knee</p>	<p>All indications requiring unicompartimental relief by 3 point principle and additional physiological guidance such as:</p> <ul style="list-style-type: none"> <li>• unilateral osteoarthritis</li> <li>• meniscus intervention</li> </ul>		<p>patented dynamic belt tensioning for effective off-loading of the knee; compressive medi Airtex<sup>+</sup> improves proprioception</p>

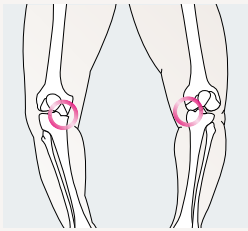
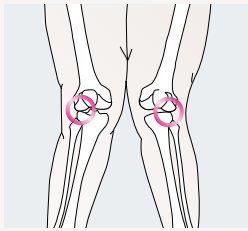
soft supports with medi compression

	Indications	What's special?
 <p><b>Genumedi®</b> knee support with patella silicone ring</p>	<ul style="list-style-type: none"> <li>• slight instability of the knee joint</li> <li>• articular effusions and swellings</li> <li>• chronic, post-operative and post-traumatic inflammation</li> <li>• osteoarthritis and arthritis</li> <li>• patello femoral pain syndrome</li> </ul>	<p>maximum relief of the patella due to the silicone patella ring with its open inner surface</p>

Suggested choice of brace according to patient specific factors

	Genumedi	medi Soft OA light	medi Soft OA	M.3s OA	M.4s OA comfort
<b>pain level</b>	low	low	moderate	high	high
<b>activity level</b>	high	low	high	moderate	moderate
<b>deformity</b>	-	minor	moderate	high	high
<b>instability</b>	minor	minor	moderate	moderate	high
<b>OA grade</b>	early-onset OA	grade 1–2	grade 2–3	grade 3–4	grade 3–4

OA brace: varus or valgus?

Deformity	varus deformity (bowed leg)		valgus deformity (knock-kneed)	
				
<b>Affected side</b>	medial right	medial left	lateral right	lateral left
<b>Treatment</b>	medial relief	medial relief	lateral relief	lateral relief
<b>off-loading joint</b>	lateral right	lateral left	medial right	medial right
<b>Direction of force applied</b>	lateral to medial	lateral to medial	medial to lateral	lateral to medial
<b>Brace</b>	right varus	left varus	right valgus	left valgus



# Our support for you

Besides the broad product spectrum, take advantage of our comprehensive information material. For further information contact: [export@medi.de](mailto:export@medi.de)

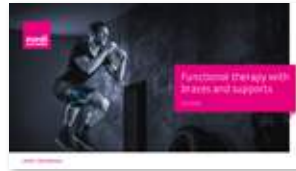
## Product information for you



prescription guidelines  
osteoarthritis  
DIN A4  
Art.No. 0098198



medi orthopaedics  
braces and supports,  
DIN A4  
Art.No. 0099944



Indication booklet,  
DIN long  
Art.-Nr.: 0099893

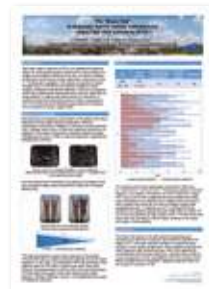
## Product information for you



medi knee-range,  
DIN A4  
Art.No. 0090409



Femoral and tibial  
stress reaction in  
recreational athletes.  
DIN A4  
Art.No. 0097E14



The „Brace Test“: A diagnostic  
tool for unclear indications  
for valgus tibial osteotomy  
(HTO),  
DIN A4  
Art.No. 0097E16

## Studies

## Digital therapy guide for your patients

On each product, you will find a QR code and the short URL [medi.biz/OA](https://medi.biz/OA). Here, your patients will find further information and effective physio exercises for the treatment of osteoarthritis.



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